

Perceptions of Women and Gaming:

Exploring Implications of Intersectionality through Quantitative Analysis of Blog Comments

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Abstract

The goal of this study is to determine how the general gaming public perceives women in the gaming culture differently by certain visual criteria portrayed on the internet in the form of a blog. More specifically, it pursues to find out how the same perspective of women in gaming culture is received by the public, despite differences in only gender and racial representation. Under the context of intersectionality, the proceeding criteria were used to determine the perception of women in the gaming culture and issues that surround them. Comments or public reactions of blog pages were analyzed by conditions of race and gender, which then were expert coded and used to conduct a qualitative analysis of “hostility” and “acknowledgment”. The categorized reactions were then used to produce a quantitative measurement to determine the public perception of women within the gaming culture. Results indicate examination of condition (Black female, Black male, White female, White male) revealed statistically significant differences in the pattern of hostile and non-hostile responses. Furthermore, an examination of conditions also revealed statistically different patterns related to acknowledgment of a problem. Noted patterns of hostility and acknowledgement may help to further determine implications of the intersecting aspects of one’s identity in an expanding culture and industry of games.

Introduction

Gender continues to be a contentious issue within the gaming community. While gender originally refers to a social construction of one's identity (Shaw & Lee, 2015), within the context of this study for analytic purposes, gender is referred to as representing oneself as a biological female or male. Issues within the community range from hypersexualized visual displays of women in the virtual world (Downs & Smith, 2010; Jansz & Martis, 2007; Ogletree & Drake, 2007; Waddell et. al., 2014; Williams et. al., 2009) to the degradation, threats, and verbal abuse of women in the game community's real world (Consalvo, 2012; Chess & Shaw, 2015).

Academic research parallels the negative valence of real-world occurrences. More specifically, scholars have found that when gamers speak with a female voice in online game play, they are three times more likely than male voices to receive derogatory or negative comments from other networked gamers (Kuznekoff & Rose, 2013). Gender stereotypes may be a reason for this hostile behavior (Aries, 1996).

From feminist studies, critical aspects of intersectionality deals with issues and perceptions of interactions between race, class, ethnicity, gender, and sexism, in comparison to the dominant white, male category (Shaw & Lee, 2015). Aspects of intersectionality propose that a hierarchy exists in society such that if one does not share relevant characteristics of the dominant group (ie. White males), then one will be more likely to suffer from some social-level disadvantage, discrimination, or oppression. While video games allow for immediate responses in an arousing online forum, blogs tend to be more thoughtful in nature (Baker & Moore, 2008; Baker & Moore, 2011). Blogs allow authors to communicate subject matter difficult to express in regular [immediate] social interactions by reducing social constraints that hinder discussion of distressing events in offline life (Baker & Moore, 2008; Baker & Moore, 2011). For instance,

bloggers or users of computer mediated communication may be more prone to display hostile nature in an online forum but not in a face-to-face exchange (Kuznekoff & Rose, 2013). These constraints could be those as listed under intersectionality including aspects of race and gender. This study will use intersectionality to analyze if bloggers will leave more negative comments on blogs that present a Black (race), female (gender) profile picture, than blogs with male profile pictures. To accomplish this goal, we begin with the literature review that will discuss how perceptions of the gamer identity and how gender stereotypes have come to shape gaming content and culture, reactions towards women in the gaming culture and industry, and previous research on gender and race representations.

Literature Review

Gamer Identity

The definition of the term “gamer” has, in the past, notably been a negative cultural identity or stereotype that has been portrayed in many other mediums of media (Kowert et.al, 2014). It is directly associated with someone who plays video games, but as Shaw (2012) states, “labeling everyone who plays video games as a gamer is misguided” (p. 29). Historically, those who self-identify as a “gamer” have come to be associated with, and stereotyped as, a white, antisocial, young male, living in the basement of his parents’ house. Furthermore, should one self-identify as a gamer, via the stereotype, this meant one was a part of an exclusive group of people with specific perspectives (ie. young, White, male). Despite this image, some studies have cited and disproven this image as the dominant one (Shaw, 2010). Individuals who do not self-identify as a gamer may still play games as much as someone who identifies as such, but will not have a vocal preference of content or opinion of the games or the culture itself. This negative

association with gaming and lack of majority voice within the community's base has come to marginalize already underrepresented groups such as women, both in the culture and industry (Shaw, 2012; Consalvo, 2012). Online bullying and verbal abuse in games have become part of the normal, virtual landscape and the industry's portrayals of violence, hypersexualized women, and lack of racial representations seem to still make up the majority content (Lynch et. al., 2016; Waddell et. al., 2014).

Initially the game industry's target audience was the young male population which subsequently adopted the term "gamer" (Williams, 2003); however, over recent years as popularity in games expanded, it has come to include not just the initial target audience, but both males and females among various ages (Williams, 2003). Furthermore, as Shaw (2012) states, "there was an assumption that if only the industry could get beyond its myopic view of its market, they could make more money by offering more diversity in their products" (p. 33). The gaming industry seems to have taken notice. Recent industry statistics suggest that women players now make up about half of the game playing market (Chess & Shaw, 2015). A study has also noted differences in male and female gaming preferences which may help to continue progressive industry development. While the initial audience of the gaming industry intended to be for White males with games often containing violence, stereotypical, and hypersexualized displays, Hartmann and Klimmt (2006) found that, for women, the social interaction was of greater relevance than gender role stereotyping and violence in videogames. Additionally, paying attention to alternative views will allow for better game creation as well as a deeper understanding of the relationship between gender and gaming (Hayes, 2005). This progression and research has allowed the gaming industry to expand into different genres of games, genders of protagonists, and welcome an entirely new audience and generation of gamers. Jason Dunning

(2015) wrote in an article stating that Sony Worldwide Studio's President, Shuhei Yoshida commented earlier this year on project with a female protagonist:

"As an industry, I think we should continue to make efforts to have more females in studios on the development side and to get different perspectives. Games have become more and more popular in terms of who plays, especially in terms of mobile. We have a chance to further increase the reach."

Despite the noted progressive evolution in gamer identity, content, and industry that try to be more inclusive in terms of race and gender representations, Kuznekoff and Rose (2013) suggest that negative stereotypes or representation have changed little over recent years.

Public Perception & Reaction

As stated previously, understanding the portrayal of gender stereotypes may be a large reason for understanding hostile behavior within the gaming community (Aries, 1996). These stereotypes include but are not limited to women being more emotional, submissive, sensitive, and over sexualized (Shaw & Lee, 2015). These stereotypes and tropes that are continuously being used in video games have led to extreme feminist activism and were a precursor to a recent issue known as the "Gamergate" controversy. It has also been known as a conspiracy or movement but regardless of the name, Gamergate is a harassment campaign. The people involved in this movement are those who have profited from the lack of diversity and those who believe that gaming should remain male dominated (Chess & Shaw, 2015). This campaign is directed toward women in the game industry, their respective positions, feminist activists, and their research that tends to confront the inherent masculinity found within the games and its associated industry (Chess & Shaw, 2015). Since 2007, women such as Kathy Sierra, a game

developer, and Anita Sarkeesian, a feminist video blogger have received numerous rape and death threats. These threats have escalated to the point where events were cancelled and their addresses and personal information have been distributed across the internet, forcing them to relocate for safety precautions (Chess & Shaw, 2015). In October 2014, Utah State University received numerous threats, one associated with Gamergate, regarding Sarkeesian's planned speech and attendance (Chess & Shaw, 2015). Sarkeesian's appearance was cancelled for safety reasons.

While individuals from the public who contributed to Gamergate want the industry to remain exclusive, social justice warriors who oppose Gamergate and similar ideals were quick to point out an event backed by Microsoft at the Game Developers Conference in 2016. The conference is where professionals come to converse on the current gaming developments. Beres (2016) from the Huffington Post noted, "women in scanty costumes were hired to entertain guests and attendees". After video and photos spread to the internet, people quickly voiced their perspective on social media sites, condemning Microsoft for driving women away and reinforcing disrespect for women (Beres, 2016). Microsoft's, Phil Spencer since released an apology reaffirming they are "committed to higher standards" (as cited in Beres, 2016).

These representation issues do not pertain just to females but minority groups of society in general. Gender remains a contentious issue both in the real world and virtual world; however, more research is necessary to fully understand the implications of those perspectives, as well as determine what the actual majority perspective is among gamers and associated culture in relation to representation, content, and industry.

Gender Studies in Mediated Communication

The slow, progressive evolution of the gaming industry may be employing more women, and gamers may come across more women online today than in the past; however, Kuznekoff and Rose (2013) suggest that negative stereotypes and hostile behavior associated with the gaming community have changed little over previous years, especially those regarding women. Kuznekoff and Rose (2013) conducted a study at Ohio University where they measured how gamers' reactions would differ between male and female voices. Rather than focus on previous research that dealt with stereotypical portrayal of gaming content, the Game Research and Immersive Design (GRID) lab at Ohio University found a way to record gameplay, and audio output from an Xbox 360 console to analyze the reactions of gamers (Kuznekoff & Rose, 2013). Computer technologies have enabled human interaction via voice channels, avatar interaction, and video feeds known as shared virtual environments (SVE), allowing gaming to go from a solitary activity to social one (Kuznekoff & Rose, 2013). The context of this study was done within Microsoft's Xbox LIVE service where gamers can interact with each other around the globe in real time. Using the online mode of the first-person shooter game "Halo 3", they would input identical, prerecorded male and female voice messages before, during, and after gameplay. They then recorded reactions from other gamers online. According to the study, the female voice received three times as many derogatory or negative comments than a male voice or no voice, even when the voices communicated the same message. Walther's (1997) hyper personal computer mediated communication (CMC) states that the characteristics associated with CMC, such as the condition of "anonymity" can create hyper negative effects for receivers (as cited in Kuznekoff & Rose, 2013). Specifically, if people in a virtual environment feel anonymous and in

control, this can help explain why hostile online behavior and verbal abuse is present; however, this does little to explain why women receive three times as many negative comments as males.

A more recent study conducted by Indiana University's Network Science Institute analyzed "over one billion chat messages from the game-streaming platform Twitch to study how the gender of streamers is associated with the nature of conversation" (Nakandala et. al, 2016, para. 1). Large scale analysis of gender inequality in social gaming platforms are limited in number; however, like Kuznekoff & Rose (2013), Nakandala's study focuses more on the interaction of the community rather than the content or representations presented to them. Through text and term-based analysis, they identified that gendered language and objectification is significantly more prevalent with popular female streamers, while popular male streamers received more game-related comments. Objectification in this case is defined as "language that reduce women to their body or appearance or as objects to be owned or used" (Nakandala et. al, 2016, para. 13). These results reinforce a sexist perspective of the gaming community, where misogyny is the norm, and continuous objectification of women is accepted. While this study could not consider every aspect of context (e.g. streamer's reactions), and looked only at a static representation of comments between August and November, it nonetheless represents that there is still a major gender imbalance in the gaming community (Nakandala et. al, 2016).

Gender Representations & Implications

The gaming communities and the industry still seem to cater to the gender divide despite the growth of additional inclusive content. The importance of these types of additions is not solely for bringing in additional revenue for the industry. If the industry would no longer alienate fifty percent of the market with "boys only" content, and allow for greater educational

opportunities with the use of games, as discussed in Simpson and Elias (2011), the industry may indirectly shape gender relations. “There are several reasons why the presence, absence, or type of portrayal of social groups matter in a diverse society, ranging from social justice and power imbalance, to models of effects and stereotype formation” (Williams et.al., 2009, p. 818). The media, due to absence of, and portrayals of minority groups, tend to create, or ignore representations of white privilege or white power (Dietrich, 2013). More specifically, minority groups are generally underrepresented and when they are represented, they are portrayed in a stereotypical fashion. The subject of race in video games has little research and tends to focus only on stereotypes of the virtual character (Dietrich, 2013). Studies and analysis have shown the societal normative such as White-based representations and gendered stereotypes have thrived both in content and ideology (Beasley & Standley, 2002; Dietrich, 2013; Dietz, 1998; Downs & Smith, 2010; Jansz, & Martis, 2007; Waddell et. al., 2014; Williams et. al., 2009). A gender-based study done by Provenzo (1991) stated that 92% of game cover illustrations were male (115 characters), while only 8% was female (9 characters) (as cited in Jansz & Martis, 2007, p. 143). The physical attributes and language spoken of the portrayed characters depended on race and gender. The typical white male stereotype and hyper-sexualized female characters were most common. Despite being an older study and the recent progressive movements of the gaming industry, “for minority players, the message communicated here is that along with society, the virtual world is also a place they do not belong” (Dietrich, 2013, p. 97). While this may not be the intended message, the construction of the meaning applies to both reality and virtual spaces interchangeably, which then is later applied to social relations (Dietrich, 2013).

Another study found similar results along gender and racial representations. Downs and Smith (2010) conducted a content analyses of video game characters in the top 20 bestselling

videogames each for Microsoft, Sony, and Nintendo totaling 489 characters to code based by their sex. In terms of gender representation, females appeared 14% of the time compared to 86% for males. Of the 14% of female characters, 25% of them were depicted with unrealistic body sizes, and nudity was 10 times more likely to be shown than with male characters. Lastly, 41% of females portrayed in sexually revealing clothing compared to 11% of males. Along with gender representation, the racial representation was also low. Of the 489 characters 50% were Caucasian, 21% African, 7% Asian/Pacific Islander, 3% Hispanic, and 19% had an unidentified race (Downs & Smith, 2010). Within races, female gender representation was also imbalanced. These studies represent the imbalance, stereotypical, and misrepresentation of gender and racial identities within games. The individuals who engage with this medium, as with television or movies, may be prone to model what they view in terms of gender roles and stereotype formations should social cognitive theory be at the theoretical base (Bandura, 2002), ultimately increasing the frequency of sexism, objectification, and contempt for diversity (Dietrich, 2013; Downs & Smith, 2010; Williams et. al., 2009).

In contrast to the previous representational studies, The Media School, Indiana University, Bloomington published a 31-year study of a content analysis of female characters in video games. Referenced earlier, Shaw (2012) implied that if the industry could get beyond its myopic view of its market, they could make more money by offering more diversity in their products” (p. 33). The study indicates the industry may be reacting to its critics (Lynch, et al., 2016, p. 13). In terms of quantity, the industry still caters to the male consumer market but female interest in games has grown. This increased interest has made relatively significant improvements of diverse content, and representation in the industry. The IDGA noted that 22% of video game professionals are now women (as cited in Lynch et. al, 2016). The amount of

sexualized characters started to decrease post 2006; however, some genres of games, such as fighting games, still employ overtly sexualized characters (Lynch et. al, 2016, p. 13).

Furthermore, the number of female characters has increased but these characters often are not primary protagonists reinforcing past research (Downs & Smith, 2010). Heflick, Goldenberg, Cooper, and Puvia (2011) note the associated risks with gender representation such as objectification, and violence against women in media still remain (as cited in Lynch. et at., 2016),

Intersectionality: Theory and Measurement Basis

As noted by Shaw and Lee (2015), one of “intersectionality’s critical practices include; exploring the implications of simultaneous privilege and oppression...and focuses on how personhood can be structured on internalized hierarchies” (p. 82). Since aspects of one’s identity are not mutually exclusive to another, such that one’s identity is not made up by only their race, this study aims to initiate intersectionality both as theory and a basis for empirical measurements (Shaw & Lee, 2015). As a theoretical basis, intersectionality is essentially the interaction between multiple aspects of what makes up a person’s identity and how those aspects can create hierarchies in society that are institutionalized by groups of power (e.g. White male).

Furthermore, if one does not share relevant characteristics by the group in power, one will be more likely to suffer from some social-level disadvantage, discrimination, or oppression. Some aspects of intersectionality deal with issues and perceptions of race, class, ethnicity, gender, age, or sexual orientation, in comparison to the dominant white, male category (Shaw & Lee, 2015) or in comparison to any other sections of identity. Using intersectionality as a base for measurements, assuming the dominant white male identity, allows this study to further look at

how specific aspects of identity impact one's interactions within gaming culture since it is unlikely that not all females or males will or do receive the same degree of discrimination or oppression in gaming culture.

Assuming a hierarchical structure of identities, within the context of gender and race, one would expect a black female to receive more negative responses than a white female due to the intersecting of both race and biological sex. Furthermore, looking at the interaction between racial variables (white and black) and gender variables (female/male) within the gaming communities will help to explain simultaneous privilege and oppression such that a white female may face discrimination by gender but not by race (Shaw & Lee, 2015). Assuming the theoretical aspect of intersectionality measurements will be collected, by manipulating gender and racial variables. We will be able to compare comments between race and gender and expect to view the following:

H1: Expect to see less hostile comments towards women should the blog author be a White male.

H2: Expect to see more hostile comments towards women should the author be a White female.

H3: Expect to see the greatest number of hostile comments towards women should the author be a Black female.

To further analyze a potential gender hierarchy in terms of the degree of comments, the following research question was asked:

RQ1: Will males, regardless of race, tend to have the least amount of hostile comments despite their perceived position of women in the gaming culture?

Method

Online Material and Participants

For the purposes of this study, the blogging platform, WordPress, was selected to host 4 different blog pages to be used as stimulus material conditions. This platform was selected because multiple blog pages could be created within the same account, and that the platform is not directly affiliated with any outside news networks. Additionally, the platform allowed others to publicly comment, settings permitted, by submitting a random or anonymous email along with their comment. Within the WordPress community, other users could re-blog the specifically viewed page potentially allowing to increase readers. The aspects of commenting directly on the WordPress platform (blog page), and re-blogging were not used in the study since the blogs pages were distributed towards specific gaming community pages on another site. More specifically, no data was collected directly from the WordPress platform. Finally, this platform allowed for both text and picture material to be presented-a limitation further elaborated on in the discussion section.

As previously noted, while the blogs could be viewed, and shared within the WordPress user community, the distribution of the four blog pages were tailored towards gaming communities within the website, Reddit. Eight subreddit pages, focused largely with gaming, were selected to distribute the blog pages (Appendix F.1). Prior to distribution, permission to post within each subreddit was granted via the moderators of each specific subreddit. Moderator(s) are individuals who can remove and change content of a subreddit page to keep content specific to that particular page.

To collect data for this study, an online post was created in each subreddit page that contained a title, a brief post explanation, and finally a hyperlink associated with a specific

WordPress blog page. Clicking on the hyperlink within the subreddit post would bring the reader directly to the WordPress blog page where they would engage with the stimulus material and then asked to comment their thoughts on the subreddit post.

The research was reviewed by the IRB and it was determined that informed consent was not necessary as individuals who decided to post did so of their free will in a known public forum.

Conditions and Design

To operationalize an empirical aspect of intersectionality, 4 blog pages were constructed in WordPress in order to interact with the gaming public. Each page consisted of a (1) visual identifier (profile picture) of the author, (2) the first name of the author, (3) and their perspective of women and content in the gaming culture (Appendix F.4). Of the four blog pages, only the visual identifier and associated name of the author was different in terms of their gender, and race. Identifiable gender consisted of either female or male, for analytic purposes, and racial identification was either black or white (Appendix F.3). Each of the four blog pages was assigned a name based on their race and gender (Appendix F.2). The study tried to use names that could seemingly fit across racial divides to reduce possible stereotypes that can be associated with names of certain ethnicities or races. For example, the name “James” was used for the black, male author, while the name “Shaun” was used for the white, male author. While each account had a different visual identifier, the statement of the perspectives of women and content in the gaming culture remained constant over all 4 blog pages. The text material first presented the apparentness of sexism and harassment of women that leads to a hostile game culture, then mentioned the aspect of diversity in content and gamers. Finally, the material mentioned a brief

call-to-action to work to create an inclusive gaming culture. All previously mentioned aspects were stated briefly within the blog page for the public to become quickly engaged. Both the visual identifier and perspective acted as the primary stimulus for participants to formulate participants' responses.

Procedure

Prior to data collection, each of the 4 blog conditions was randomly assigned to 2 subreddit pages (Appendix F.1). Data collection and dispersal of conditions was completed in two segments each lasting approximately 36 hours. More specifically, the 4 conditions were posted to one of their assigned subreddit pages then after 36 hours, moderators were messaged to lock the post so no other participants could comment. The time allotment of 36 hours was used for participants to find and engage with the post.

Unit of Analysis

The unit of analysis for the study was the comments participants left in reaction to the blog page material. Qualitatively assessing comments at the response level (per comment) allowed for analysis of acknowledgment of blog material, attitude and tone of the message. After using the participant's user name to determine where comments began and ended, each comment was analyzed based on their content in reaction, or lack there-of, to the blog condition. Comments were analyzed if they contained whole sentences, parts of a sentence, and singular or multiple words.

Coding

A total of 127 comments were expert coded-done by the first author-across the four conditions.

Comments and their associated perspectives were first coded in terms of Acknowledgement (yes, no, both, N/A). “Yes” indicated that the comment, in response to the blog, agreed or stated that issues such as sexism and harassment against women as well as diversity, are still present in gaming culture. “No” indicated that those issues are no longer present within gaming culture. “Both” indicated that the comment acknowledged specific aspects of the post or issue. For example, the comment may have agreed that women are still harassed but indicated that diversity of content is not an issue. “N/A” was coded as either completely unrelated or mentioned associated issues not specifically mentioned in the blog content.

Comments were then coded in terms of Hostility (yes, no, both, N/A). Hostility would be the type of language used by the participant and whether the comment was directed at the issue presented by the blog, or at the individual who posted the blog on the subreddit page. For example, vulgar language or racist remarks would be labeled as hostile. “Yes” indicated that the comment consisted of hostile language. “No” indicated there was no hostility in the comment. “Both” indicated that vulgar language was used but may have offered further insight to the issues or the poster. Finally, “N/A” was coded as not discern-able. The intent or tone of the comment in this case, could not be qualitatively identified.

Results

To test for differences across conditions, crosstab analyses were employed to examine frequencies. Examination of condition (Black female, Black male, White female, White male) by hostility (yes, no, both, N/A) revealed statistically significant differences in the pattern of hostile

and non-hostile responses $\chi^2(6) = 13.38, p < .05$, *Cramer's V* = .23. Hypothesis one proposed that one would see less hostile comments towards women should the blog author be a White male.

This proposition was upheld considering the White male received the most non-hostile responses overall ($n = 55$), but did not receive any responses that were coded as hostile. By comparison, the Black male and White female received far fewer positive comments ($n = 20$) and ($n = 9$), respectively, but both had equal amounts of hostile comments ($n = 3$). These results partially upheld hypothesis two which proposed that one would see more hostile comments towards women if the author is a White female. Lastly, hypothesis three proposed that one would see the greatest amount of hostile comments towards women should the author be a Black female. This hypothesis was not supported considering the Black female had the fewest comments overall ($n = 5$), but none were coded as hostile. Although the Black female condition received no hostile comments compared to the Black male and White female conditions, this difference may be due to the lack of comments overall. One may see a change consistent with the Black male and White female conditions if the Black female condition had received additional comments.

Table 1

Cond * Hostile Crosstabulation

Count

		Hostile		NA	Total
		No Hostility	Hostile		
Cond	Black Male	20	3	6	29
	White Female	9	3	5	17
	Black Female	3	0	2	5
	White Male	55	0	21	76
Total		87	6	34	127

An examination of condition (Black female, Black male, White female, White male) by acknowledgment of a problem (yes, no, both, N/A) revealed statistically different patterns as well, $\chi^2(9) = 17.54, p < .05$, *Cramer's V* = .22. While most of the coded comments did not apply to the discussion at hand, a pattern emerged such that more commenters were likely to acknowledge a problem when a White male addressed the issue ($n = 12$) as opposed to when any of the other three groups asked about the issue ($n = 3$) comments across all three groups combined.

Table 2

Cond * Ack Crosstabulation

Count

		Ack				Total
		Negative	Positive	Both	NA	
Cond	Black Male	2	0	4	23	29
	White Female	5	1	1	10	17
	Black Female	0	2	1	2	5
	White Male	8	12	13	43	76
Total		15	15	19	78	127

Research question one asked, will males, regardless of race, have the least amount of hostile comments despite their perceived position of women in the gaming culture? Considering the male conditions received ($n=3$) hostile comments between both conditions, RQ1 was upheld. Furthermore, males not only received less hostile comments, the White male condition also received more positive acknowledgment ($n=12$) that there are issues within the gaming culture as opposed to when any of the other three groups asked about the issue ($n = 3$) comments across all three groups combined.

Discussion:

This study sought to examine how the general gaming public perceives issues facing women in the gaming culture differently through analysis of visual criteria in an online forum. Using intersectionality as a basis for measurements and as a theoretical argument, one goal of this study was to determine the reaction of the public when the same argument was presented by both males and females of two different races. Past research (Beasley & Standley, 2002; Dietrich, 2013; Dietz, 1998; Downs & Smith, 2010; Jansz, & Martis, 2007; Waddell et. al., 2014; Williams et. al., 2009) has focused or noted more on game material and content, rather than individuals who make up the content or gaming culture in general. A quantitative approach was conducted to measure and categorize reactions. It is necessary to note that there was a clear quantifiable pattern in the lack of acknowledgment and increased hostility to those outside of the dominant White male category under the context of intersectionality. While the Reddit environment seems to be largely non-hostile, it is interesting to note when hostility does emerge, it is not directed towards the dominant group. In summary, this study's findings suggest that certain aspects of one's identity (including race and gender) increase probability of receiving hostile reactions. As for acknowledgment, while the White male condition received more positive acknowledgement ($n=12$), it would be presumptuous to state that the Black female condition received the least amount acknowledgment simply because of the intersecting gender and race.

As with any study, this one is not free of limitations that future researchers should note. The first limitation to the study was the sample size, which may have had a significant impact on the results, with only 127 comments analyzed. Increasing sample size would allow for a more detailed analysis of trends and significant outcomes. Furthermore, the study did not account for

repeat commenters, and any future research may seek to limit analysis to one reaction per participant. Secondly, while coding was done at the response level (per comment), it is worthy to note that comments may be analyzed at the thought or sentence level allowing for more detailed results within a sample size. More research is warranted, as many comments left by participants within this study were considerably lengthy with some reaching over a single typed page.

Furthermore, the way this study collected data by having to use two different online sites is something to consider. Using a blogging platform allowed the researchers to formulate stimulus material so that both the visual identifier (picture) and text (opinion) was visible simultaneously; however, Reddit formatting limited the researchers to a specific format to distribute the material. Rather than presenting the stimulus material directly in the Reddit post, a hyperlink had to be used to take a participant to the blog material. This could have limited the number of responses. This is partially because the eight subreddit pages used within the study limited posts to either link only or text only formats. While Reddit and blogging sites may result in accumulating significant data, issues surrounding formatting stimulus material is necessary to consider. An additional limitation under formatting was the perspective and portrayal of the stimulus material. Future research could account for visual identifier/avatar realness. More specifically, one could measure differences in responses of real profile portraits and an animated portrait. This study only used real profile portraits obtained via a database that allows the use of listed images. Lastly, because statements in this study were broad and generalized, any future research could account for limiting material to specific, narrow opinions or perceived issues.

Another limitation would be page specificity, or genres. This study consisted mainly of posting on first-person shooters, or role playing game pages. Results or reactions could differ among genres of games which may necessitate cross genre analysis. Additionally, while posting

content, it is necessary to account for where material is distributed to, and how specific a researcher's content aligns with the content on the website. For example, while the stimulus material consisted of game related issues and topics, it was not necessarily specific to "r/thelastofus" which discusses only topics related strictly to that specific game.

Finally, by not considering and verifying age, gender, and race, researchers are not able to determine what the majority perspective among the gaming culture is towards issues concerning women and how aspects of intersectionality influence those perspectives. While hostility towards others is not a novel phenomenon on the internet, past research of online bullying takes place largely within younger age groups and adolescents (Duffy & Nesdale, 2009; Park et. al, 2014; Seiler & Navarro, 2014). While younger individuals may not be sophisticated enough to create something like Gamergate, demographic information may help to determine future action and perspectives of the gaming culture.

In summary, despite limitations, this study was able to provide further support for intersectionality by examining how the general gaming public perceives issues facing women in the gaming culture differently. Specifically, the White male condition received more acknowledgement as well as less hostility than those of other identities. The next step in future research is to determine what the majority perspective of the gaming culture is as well as determine why such hierarchies continue to exist within today's society even at a subcultural level. It is clear that additional research on gaming culture and content is necessary to fully comprehend a subculture that is continuously gaining popularity among all sections of identity.

Conclusion:

The current study further builds upon past research concerning gender studies and videogames and provides two contributions: the content of study; and findings. While many studies have analyzed the content of video games, this study-much like Kuznekoff and Rose (2013), and Nakandala et. al, (2016)-provides an additional context to how individuals of the gaming community interact when presented with differences in race or gender in a computer mediated environment. While content analysis will continue to be an important area of research, especially with the advancement in graphics technology, it will also be necessary to further analyze interactions of real individuals to provide an additional angle of analysis. Applying different feminist theories or perspectives to gaming and gender studies, such as intersectionality, helps to bring further understanding of the intricacies surrounding the intersecting aspects of one's identity, and the implications those aspects have within society or the gaming subculture. More specifically, the findings of this study indicate that should one not share similar characteristics to the dominant White male category, they are subject to receive more hostile responses. Additional findings indicate more acknowledgment when a White male mentions an issue, such as the issues that women face in the gaming community, than with other identities. The full analysis allows for an additional consideration in how race or gender impacts an individual's social experience, as noted in other studies; however, it does not answer concretely why these issues or hierarchies continue to exist even at a subcultural level. The gaming industry seems to be adopting progressive ideals (Lynch et. al., 2016), albeit rather slowly; however, there seems to be certain cross sections of members of gaming communities who are not adopting these progressive ideals as quickly as the industry. As noted previously, the responses were largely non-hostile but few still contained hostility toward the non-dominant groups. It is clear

that additional research must be conducted to understand the evolving gaming culture. Potential extensions of this study would seek to determine who these individuals are and the motivations of these individuals who continue to persist in dogmatic, hostile, ideologies within the context in what appears to be a progressive, evolving, gaming culture.

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Appendix

Figure 1. Subreddit Pages

<u>Page Title</u>	<u>Condition Assignment</u>
r/pokemongo	Black Male
r/battlefield_one	White Female
r/elderscrollsonline	Black Female
r/thelastofus	White Male
r/skyrim	White Female
r/assassinscreed	Black Male
r/AskGames	Black Female
r/ludology	White Male

Figure 2. Blog Associated Names

Female Names	Male Names
Aaliyah (B)	James (B)
Mary (W)	Shaun (W)

Figure 3. Design Diagram

Gender (Male/Female) X Race (White/Black)

<u>Race X Gender</u>	Male	Female
Black	Black-Male	Black-Female
White	White-Male	White-Female

Figure 4. Condition Design

Why is it so hard to talk about the issues facing women in gaming culture?

Everyday female gamers face rampant sexism and harassment campaigns simply because of their gender. Many female game characters are hypersexualized and female gamers are verbally abused in online game forums. Feminist scholar and media vlogger Anita Sarkeesian, has received threats of violence and death to her and her family just for having an opinion.

It's not just the players that create a hostile culture but many of the games themselves. Misrepresentation of race, gender and hyper-sexualized women cater to a specific gaming audience. Even though video games have become a more popular medium among many, why does the game culture seem so hostile? There is plenty of room for diverse gamers, diverse characters, and diverse communities to make those games. Let's all try to work together to create an inclusive space where we're all just "gamers".

Comment your thoughts on the reddit page



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